REMARKS

In the specification, paragraph [0002] has been amended to include the proper status of parent application 09/784,679 as U.S. Patent No. 6,692,699.

Claims 1-20 are currently pending. Claims 1, 8 and 16 have been amended. Support for the amended claims may be found throughout the specification including but not limited to the claims as originally filed and the following paragraphs:

Claim 1: paragraph [0018]

Claim 8: paragraph [0065]

Claim 16: paragraph [0065].

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

I. Claim Rejections under 35 U.S.C. § 112.

The Examiner has rejected claims 8 and 16 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. The Examiner has objected to the terminology "a portion of." In support of this objection, the Examiner has alleged that "a portion of" is considered indefinite, because it is unclear as to the meaning of measuring the degree of "a portion of." In light of the amendments to claims 8 and 16, Applicants respectfully traverse.

Applicants respectfully point out that in paragraph [0065], Applicants have defined "a portion of an immunoglobulin:"

> Preferred biomolecule recognition agents include immunoglobulins such as IgGs [immunoglobulins] or portions of immunoglobulins that are more preferably capable of recognizing and binding

> epitopes and binding domains associated with proteins, viruses, bacteria, and other microscopic pathogens."

The "a portion of an immunoglobulin," as found in amended claims 8 and 16, is bounded by the fact that any portion of an immunoglobulin that comports with the scope of the invention must be capable of "*recognizing* and *binding epitopes* and *binding domains* associated with microscopic pathogens." It is clear from the noted passage in the specification and the amendments to claims 8 and 16, that not just any portion will suffice, the portion must be capable of "recognizing and binding," and those portions will be readily recognized by one of ordinary skill in the art. In view of the amendments to claims 8 and 16, Applicants respectfully request that the Examiner reconsider and withdraw the rejections based upon 35 U.S.C. § 112, second paragraph.

II. Claim rejections under 35 U.S.C. § 102.

A. Rejections based upon Gupta.

The Examiner has rejected claims 1, 2, 6, 14, 16, and 20; claims 1-3, 6, 10, 14, and 16; and claims 17-19 under 35 U.S.C. § 102(b) as allegedly being anticipated by Gupta *et al.* (*Science* **1998**, 279(5359), pp. 2077-2080; 'Gupta'). Applicants respectfully traverse.

M.P.E.P § 2131 requires that:

> [a] claim is anticipated only if each and every element as set forth in the claim is found expressly or inherently in a single prior art reference. The identical invention must be shown in as complete detail as is contained in the...claim. (Citations omitted).

Gupta does not teach each and every element of the claimed invention. As amended, claim 1 recites, in part, "wherein...a surface of the biochemical blocking layer is *a rubbed surface* that possesses features that drive a uniform anchoring of liquid crystals when the liquid crystals contact the rubbed surface." A *rubbed surface* is a required element of each and every claim recited in the application, either independently or by way of dependency. As described by the Applicants in the present application, a rubbed surface is a surface that has had a pressure

applied along its length. (Paragraph [0071]). A rubbed surface is structurally different from a non-rubbed surface, as reflected in the improved uniformity of liquid crystal anchoring on the rubbed surfaces. This improvement is clearly illustrated in Figures 4, 6 and 7, of the present application. The improved uniformity of the liquid crystals makes detection of bound analytes to the biomolecule recognition agent easier and more accurate than in non-rubbed structures.

Gupta simply fails to teach either expressly or inherently a rubbed surface, or any benefit received from rubbing of a surface. To the extent the Examiner is relying on inherency, this too must fail. M.P.E.P. § 2112(IV) states:

> In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.

Gupta teaches a mixture of self-assembled monolayers (SAMs) of thiols and biotin compounds on a surface. Gupta does not mention, describe, suggest, or otherwise disclose any type of rubbing method, or rubbed surface that possesses features that drive a uniform anchoring of liquid crystals. Because Gupta fails to teach or suggest that the surface of the biochemical blocking layer is a rubbed surface, Applicants respectfully submit that Gupta does not disclose *each and every element in as complete detail as is contained in the claim*, and without such a disclosure the present invention cannot be found to necessarily flow from the teachings of Gupta. Therefore, Gupta cannot expressly or inherently anticipate the present invention.

In view of the foregoing remarks, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of claim 1 under 35 U.S.C. § 102(b). Because claims 2, 3, 6, 10, 14, and 16-20 all depend from claim 1, and thereby necessarily include all of the limitations of claim 1 (37 C.F.R. § 1.75), Applicants request that the Examiner withdraw the rejection of those claims as well.

B. Rejections based upon Abbott I.

The Examiner has rejected claims 1, 2, 4, 14, 15, and 16 under 35 U.S.C. § 102(e) as being anticipated by, or in the alternative under 35 U.S.C. § 103(a) as being obvious over Abbott *et al.*, U.S. Patent No. 6,277,489 (hereafter 'Abbott I'). Applicants respectfully traverse.

The rubbed substrate structures as found in claim 1, are not found in, described in, or suggested by Abbott I. Claim 1 recites a "*rubbed substrate structure* for use in a liquid crystal assay device, comprising: a biochemical blocking layer...; a biomolecule recognition agent...; wherein the biochemical blocking layer comprises biochemicals, wherein a *surface of the biochemical blocking layer is a rubbed surface* that possesses features that drive a uniform anchoring of liquid crystals when the liquid crystals contact the rubbed surface..." Abbott I does not mention, describe, or suggest rubbing a biochemical blocking layer such that it possesses features that drive a uniform anchoring of liquid crystals. On page 9, of the Office Action, the Examiner alleges:

> [T]he claimed invention further differs from the prior art teachings only by the recitation of the functional limitation of the biochemical blocking layer that it 'possesses features that drive a uniform anchoring of liquid crystals when the liquid crystals contact the rubbed surface'.

Applicants submit that this is an incorrect interpretation of claim 1 of the present invention and of the prior art. Claim 1 explicitly recites a "*rubbed surface*." A rubbed surface is not a functional limitation, it is a required, substantive element of the claim. Please note the discussion above regarding 35 U.S.C. § 112, where Applicants point out methods of rubbing and the unexpected and surprising results of rubbing a biochemical blocking layer as compared to an unrubbed layer. Abbott I does not possess, suggest, or motivate one of skill in the art to rub a surface, much less to rub a surface to gain desirable properties, and without more, one cannot have any expectation of success in doing so. In fact, there is no discussion of a rubbed surface, rubbing a surface, or even a single reference to the word "rub" or a word such as "rubbed" or "rubbing" with the root of "rub" in Abbott I.

The Examiner alleges on page 9 of the Office Action that the

> . . . multilayered particulate material of Abbott *et al.* would still anticipate the presently claimed device since it meets all the structural limitation of the claimed device that is 'a biochemical blocking compound chemically immobilized on a support thereby forming a biochemical blocking layer; and (b) a biomolecule recognition agent deposited on the same side of the support as the biochemical blocking layer.

However, at no point in the above quoted material has the Examiner acknowledged that the surface of the biochemical blocking layer *is rubbed.* As stated earlier, the rubbed surface of the biochemical blocking layer is a substantive, required element of the claim and it must be treated as such by the Examiner.

For the reasons discussed above, Abbott I does not teach or suggest each and every element of the claimed invention, or provide any expectation of success, and as such, Applicants respectfully submit that Abbott I cannot anticipate or obviate the present invention.

C. Rejections based upon Abbott II.

The Examiner has further rejected claims 1-3, 6, 7, 10, 14, 16, and 20, and 17-19 under 35 U.S.C. § 102(e) as being anticipated by Abbott *et al.*, U.S. Patent No. 6,284,197 (hereinafter "Abbott II"). The Examiner has further rejected claims 1-3, 6, 7, 10, 14, 16, and 20 in the alternative under 35 U.S.C. § 103(a) as being obvious over Abbott II. Applicants respectfully traverse.

Abbott II does not anticipate or make obvious the present invention. As discussed above, claim 1 of the present invention recites, in relevant parts, "wherein the biochemical blocking layer comprises biochemicals" and "a *surface of the biochemical blocking layer is a rubbed surface* that possesses features that drive a uniform anchoring of liquid crystals." Applicants submit that the disclosure of Abbott II does not teach, or suggest "*a rubbed surface that possesses features that drive a uniform anchoring of liquid crystals*," nor does Abbott II teach or suggest that a "biochemical blocking layer comprises *biochemicals*." The rubbed surface of a

biochemical blocking layer as described in claim 1, is not found in, described in, or suggested by Abbott II. The substrates of Abbott II are described in the specification and may be rubbed substrates, such as glasses that are rubbed (Col. 15, lines 13-18):

> Thus, in one preferred embodiment, the substrate is glass or an organic polymer and the *surface has been prepared by rubbing*. Rubbing can be accomplished using virtually any material including tissues, paper, brushes, polishing paste, etc. In a preferred embodiment, the rubbing is accomplished by use of a diamond rubbing paste. (Emphasis added).

From the quoted material it is clear that it is the surface of the substrate that is rubbed to *prepare the surface* for further processing. In Abbott II, the surface of a biochemical layer *comprising biochemicals* is *not* rubbed, it is the surface of the substrate itself (i.e., the glass or organic polymer) that is rubbed.

Abbott II describes that polymeric surfaces may be deposited on an organic layer under Section A.4. entitled Organic Polymers. The polymeric surfaces described, do not encompass or contemplate *biochemicals*, as shown below:

> Organic polymers that form useful substrates include, for example, polyalkenes (e.g., polyethylene, polyisobutene, polybutadiene), polyacrylics (e.g., polyacrylate, polymethyl methacrylate, polycyanoacrylate), polyvinyls (e.g., polyvinyl alcohol, polyvinyl acetate, polyvinyl butyral, polyvinyl chloride), polystyrenes, polycarbonates, polyesters, polyurethanes, polyamides, polyimides, polysulfone, polysiloxanes, polyheterocycles, cellulose derivative (e.g., methyl cellulose, cellulose acetate, nitrocellulose), polysilanes, fluorinated polymers, epoxies, polyethers and phenolic resins. See, Cognard, J. ALIGNMENT OF NEMATIC LIQUID CRYSTALS AND THEIR MIXTURES, in Mol. Cryst. Liq. Cryst. 1:1-74 (1982). Presently preferred organic polymers include polydimethylsiloxane, polyethylene, polyacrylonitrile, cellulosic materials, polycarbonates and polyvinyl pyridinium.
>
> . . . Useful permeable membranes include, but are not limited to, flexible cellulosic materials (e.g., regenerated cellulose dialysis membranes), rigid cellulosic materials (e.g., cellulose ester dialysis membranes), rigid polyvinylidene fluoride membranes,

> polydimethylsiloxane and track etched polycarbonate membranes. Col. 14, lines 21-50.

Abbott II continues on in other sections to describe that the polymeric surfaces may be altered through rubbing:

> Patterned anchoring surfaces have been prepared by using mechanical rubbing of spin-coated polymer films, photolithographic masking, and a second rubbing step performed in a direction orthogonal to the first. Col. 2, lines 32-35.

> Control of the anchoring of mesogens has been largely based on the use of organic surfaces prepared by coating surface-active molecules or polymer films on inorganic (e.g., silicon oxide) substrates followed by surface treatments such as rubbing. Col. 16, lines 55-59.

> As used herein, the term "recognition moiety" refers to molecules which are attached to either ω-functionalized spacer arms or ω-functionalized SAM components. Furthermore, a r*ecognition moiety can be presented by a polymer surface* (e.g., a rubbed polymer surface). The recognition moieties bind to, or otherwise interact with, the analyte of interest. Col. 23, lines 46-52. Emphasis added.

From the quoted passages it is clear that the polymeric surfaces contemplated in Abbott II are *not the biochemical blocking layers* of the present application. Abbott II describes the rubbing of the listed polymers, however there is no discussion of rubbing of a biochemical surface. In the final quoted passage above, Abbott II describes that recognition moieties may be presented by a rubbed polymer surface. It is the surface of a polymer that is rubbed and the recognition moiety is *presented by the rubbed surface* – i.e., the recognition moiety *is not rubbed* – the recognition moiety is *attached to the rubbed surface*. This is concrete evidence that Abbott II does not mention, describe, or suggest a biochemical blocking layer *comprising biochemicals*, or the *rubbing of a biochemical blocking layer* such that it possesses features that drive a uniform anchoring of liquid crystals. Claim 3 of the present invention specifically recites that "the biochemical recognition agent is deposited on the same side of the support as the biochemical blocking layer before the biochemical blocking layer is rubbed;" i.e., the recognition

agent may also be rubbed. Because Abbott II does not teach, either expressly or inherently, all of the claim limitations, in as complete detail as described in the claim, Abbott II cannot be found to anticipate the present application. Furthermore, because there is no teaching of each and every element of the claim, or motivation to alter the cited reference to suggest each and every element of the claim, with a reasonable expectation of success, Abbott II cannot be found to obviate the present invention.

On page 11 of the Office Action, the Examiner states that "[a]lternatively, the claimed invention further differs from the prior art teachings only by the recitation of the process limitation of *the biomolecule recognition agent is deposited on the same side of the support as the biochemical blocking layer before the biochemical blocking layer is rubbed* of claim 3..." (Emphasis in Office Action). Applicants respectfully submit that, as recited in claim 1, the phrase "wherein the biochemical blocking layer is a rubbed surface," is *not a process limitation*, but rather a substantive element of the claim that requires the surface of the biochemical blocking layer to be a rubbed surface. Claim 3 further expands upon that element by stating that the biomolecule recognition agent is deposited prior to the rubbing of the surface that would provide the substantive portion of the claim requiring a rubbed surface.

The Examiner further alleges that the "claimed invention appears to be the same or obvious variations of the reference teachings..." Page 12 of the Office Action. As shown above, Abbott II fails to teach or suggest all of the claim elements of the present application. In particular, Abbott II fails to teach or suggest that that "the biochemical blocking layer comprises biochemicals," and that "the surface of the biochemical blocking layer is a rubbed surface." Applicants respectfully submit that the Examiner has not pointed to any teaching or suggestion within Abbott II that would allow one of ordinary skill in the art to modify the reference, with a reasonable expectation of success, to teach or suggest all of the claim limitations. As such, Applicants respectfully submit that the Examiner has not established a *prima facie* case of obviousness, and respectfully request that the Examiner reconsider and withdraw the rejection under 35 U.S.C. §103(a), based upon Abbott II.

Applicants respectfully submit that they have provided ample evidence of patentability of the claimed invention by pointing out the differences between the cited art and the present invention. In light of the foregoing remarks regarding the noted rejections under 35 U.S.C. § 102, or for some rejections, alternatively under 35 U.S.C. § 103(a), Applicants respectfully request that the Examiner reconsider and withdraw the noted rejections and move the application toward issuance.

III. Claim Rejections Under 35 U.S.C. § 103(a).

A. Rejections based upon Gupta.

In the Office Action under paragraph 9, the Examiner rejected claims 1-3, 6, 10, 14 and 16, alternatively, under 35 U.S.C. § 103(a), as being obvious over Gupta. Applicants respectfully traverse.

According to M.P.E.P. § 2143, in order to

> . . . establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

As discussed above, at length, Gupta does not teach or suggest, either expressly or inherently, a *rubbed surface* that possesses features that drive a uniform anchoring of liquid crystals. The present application teaches numerous examples of methods of rubbing a surface of a biochemical blocking layer and examples showing the unexpected and surprising results having the surface rubbed (*vide supra*). Without a teaching or suggestion of a rubbed structure, Gupta cannot make obvious the present invention.

On page 6, of the Office Action, the Examiner states that "[a]lternatively, the claimed invention further differs from the prior art teachings only by the recitation of the process limitation of *the biomolecule recognition agent is deposited on the same side of the support as the biochemical blocking layer before the biochemical blocking layer is rubbed* of claim 3..." (Emphasis in Office Action). Applicants respectfully submit that, as recited in claim 1, the phrase "wherein the biochemical blocking layer is a rubbed surface," is *not a process limitation*, but rather a substantive element of the claim that requires the surface of the biochemical blocking layer to be a rubbed surface. Claim 3 further expands upon that element by stating that the biomolecule recognition agent is deposited prior to the rubbing of the surface. Again, the *rubbed surface* is a substantive, required element and claim 3 further teaches that the biomolecule recognition agent may be rubbed along with the biochemical blocking layer.

The Examiner further alleges that the "claimed invention appears to be the same or obvious variations of the reference teachings..." Page 7 of the Office Action. As shown above, Gupta fails to teach or suggest all of the claim elements of the present application. In particular, Gupta fails to teach or suggest that "the surface of the biochemical blocking layer is a rubbed surface." Applicants respectfully submit that the Examiner has not pointed to any teaching or suggestion within Gupta that would allow one of ordinary skill in the art to modify the reference, with a reasonable expectation of success, to teach or suggest all of the claim limitations. As such, Applicants respectfully submit that the Examiner has not established a *prima facie* case of obviousness, and respectfully request that the Examiner reconsider and withdraw the rejection under 35 U.S.C. §103(a) based upon Gupta.

B. Rejections based on Abbott II and Weetall.

The Examiner has rejected claims 1-7, 10, 14, and 16-20 under 35 U.S.C. § 103(a) as being unpatentable over Abbott II and Weetall (*Applied Biochemistry and Biotechnology*, **1993**, 41, pgs. 157-188, 'Weetall'). Applicants respectfully traverse.

As shown above, Applicants submit that the present invention is not obviated by Abbott II, and the Examiner has not pointed to any teaching of Weetall that would cure the deficiencies described. As described by the Examiner, Weetall "teaches a method of immobilizing protein on an inorganic support by way of a bifunctional 'linker' substance." (Office Action, page 18). Abbott II does not teach or suggest a biochemical blocking layer that is rubbed, and Weetall also fails in this regard. Therefore, the combination of Abbott II and Weetall fails to teach, or suggest each and every limitation of the claimed invention.

C. Rejections based on Abbott II and Anawis.

The Examiner has rejected claims 1-3, 6-14, and 16-20 as being obvious over Abbott II and Anawis *et al.* (U.S. Patent No. 5,091,318, 'Anawis'). Applicants respectfully traverse.

For all the reasons elucidated for the rejection based upon Abbott II and Weetall, the combination of Abbott II and Anawis also must fail. As stated by the Examiner, Anawis discloses "a device for detecting the presence of an analyte (antibody) in a test sample." However, Anawis does not disclose a biochemical blocking layer that is rubbed, as recited in claim 1 of the present invention. Therefore, the combination of Abbott II and Anawis cannot be found to obviate the present invention.

Applicants respectfully submit that they have provided ample evidence of patentability of the claimed invention by pointing out the differences between the cited art and the present invention. In light of the foregoing remarks regarding the noted rejections under 35 U.S.C. § 103(a), Applicants respectfully request that the Examiner reconsider and withdraw the noted rejections and move the application toward issuance.

IV. Claim Rejections Under Obviousness-Type Double Patenting.

A. Rejections based on Abbott I.

The Examiner has rejected claims 1, 14, and 16 under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3, 21, and 23 of Abbott I. Applicants respectfully traverse.

As asserted in Section II.B. in response to the rejection under 35 U.S.C. § 102, or, alternatively, under 35 U.S.C. § 103 based upon Abbott I, Applicants have shown that Abbott I does not anticipate or make obvious the present invention, and as such cannot be found to be the basis for a rejection under the judicially-created doctrine of obviousness-type double patenting. As stated in M.P.E.P. § 804(II)(B)(1) "[a] double patenting rejection of the obviousness-type is 'analogous to (a failure to meet) the nonobviousness requirement of 35 U.S.C. 103' except that the patent principally underlying the double patenting rejection is not considered prior art." Applicants have shown that Abbott I does not make obvious the present invention. Because the analysis of an obviousness-type double patenting rejection should be analogous to the obviousness analysis of a 35 U.S.C. § 103 rejection, Applicants submit that the remarks in Section II.B. above are sufficient to overcome the obviousness-type double patenting rejection based upon Abbott I.

B. Rejections based on Abbott III.

The Examiner has further rejected claims 1, 16, 17, and 20 under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5, and 11 of U.S. Patent No. 6,858,423 ('Abbott III'). Applicants respectfully traverse.

Applicants respectfully note that Abbott III is a divisional application of Application No. 09/092,453 filed on June 5, 1998, now abandoned, and Abbott II, discussed at length in Section II.C. above, is a continuation of the same application. As such, the disclosures in Abbott II and Abbott III should be virtually identical, differing only in the claims.

Abbott III does not anticipate or make obvious the present invention, and as such cannot be the basis for a rejection under the judicially-created doctrine of obviousness-type double patenting. Claim 1 of Abbott III is directed to a device requiring a first organic layer, a first substrate, a second substrate, and a mesogenic (liquid crystal) layer; claim 2 further defines an interior portion between a first and a second substrate; claim 3 is directed to a rubbed polymer; claim 4 is directed to a biomolecule comprising a polysaccharide alone or in combination with a protein; claim 5 expands upon claim 1 with a second organic layer; and claim 11 is similar to claim 1, but requires the mesogens in the mesogenic layer to undergo a detectable switch. The claims of Abbott III do not mention, describe, or suggest a biochemical blocking layer comprising biochemicals, nor does Abbott III mention, describe, or suggest rubbing a biochemical blocking layer such that it possesses features that drive a uniform anchoring of liquid crystals. Because numerous terms found in claims 1-5 and 11 of Abbott III are not defined in the claims as presented, we must look to the specification of Abbott III to find meaning in the terms. Precisely because one has to turn to the specification of Abbott III to give meaning to the terms in the claims presented in Abbott III, any discussion above of the disclosure of Abbott II is relevant. In view of the amendment to claim 1, and for all the reasons given to refute the rejections based upon Abbott II, above, with respect to obviousness, Applicants respectfully submit that Abbott III cannot be found to make obvious claims 1, 16, 17, and 20 of the present invention.

C. Rejections based on Abbott IV.

The Examiner has also provisionally rejected claims 1, 8, 9, 11, 12, 16, and 20 under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 8-10, and 14 of co-pending U.S. Patent Appl. No. 10/934,023, filed September 3, 2004 ('Abbott IV'). The Examiner has alleged that "[a]lthough the conflicting claims are not identical, they are not patentably distinct from each other because the claimed device...is generic to the device of...copending Application No. 10/934,023." Applicants respectfully traverse.

Claims 1, 8, 9, 11, 12, 16 and 20 of the present invention are not obviated by claims 1, 8-10, and 14 of copending Abbott IV. Claim 1 of Abbott IV, from which 8-10 and 14 depend, is directed to:

> A detection apparatus for use in the detection of the presence of a selected pathogen in a sample comprising:
>
> a *substrate with a detection region on a surface thereof, the detection region having microstructures comprising grooves* formed therein that will align liquid crystal material in contact therewith...a *blocking layer on the surface of the detection region* of the substrate that does not disrupt the alignment of liquid crystal material in contact therewith, the blocking layer blocking nonspecific adsorption of pathogens to the surface; and a *binding agent on the surface of the detection region of the substrate*, the binding agent specifically binding the selected pathogen. [Emphasis added.]

Applicants respectfully point out that in Abbott IV, it is the *detection region, on the surface of the substrate that is grooved*, while the blocking layer and binding agent are *on the surface of the detection region*. Abbott IV provides no teaching or suggestion of the surface of the biochemical blocking layer being a *rubbed surface*. In Abbott IV, it is the detection region of the substrate that has microstructure while the blocking layer and binding agents are on top of the microstructure. In the presently claimed invention, the *surface of the biochemical blocking layer is rubbed*. Claim 1 of Abbott IV provides no teaching of this claim element, nor does it provide any suggestion or motivation to do so. Claims 8-10, and 14 of Abbott IV also fail to cure this deficiency. Because a double patenting rejection of the obviousness-type is analogous to the nonobviousness requirement of 35 U.S.C. § 103, and there is no teaching or suggestion of all of the claim limitations, Abbott IV cannot be found to obviate the present invention. Therefore, Applicants respectfully request that the Examiner reconsider and withdraw the noted rejection of claims 1, 8, 9, 11, 12, 16, and 20.

V. Conclusion.

Applicants respectfully request that in light of the amendment to the claims and specification, and the foregoing remarks, the Examiner reconsider and withdraw all the noted objections and rejections, and move the application forward to issuance. The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Respectfully submitted,

Date February 2, 2006

By _____
Jeffrey R. Lomprey
Attorney for Applicant
Registration No. 55,401

FOLEY & LARDNER LLP
Customer Number: 23524
Telephone: 608-258-4288
Facsimile: 608-258-4258